

Division of Fractions Worksheet B

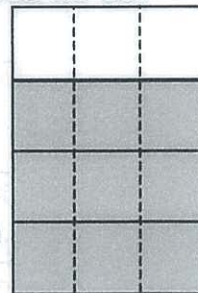
1. Mr Wong eats $\frac{3}{4}$ kg of rice in 9 days. How many kilograms of rice does he eat each day on average?

$$\frac{3}{4} \div 9 = \frac{3}{4} \times \left(\frac{1}{9} \right)$$

$$= \left(\frac{1}{12} \right)$$

$\left(\frac{1}{9} \right)$ is the reciprocal of 9.

He eats $\left(\frac{1}{12} \right)$ kg of rice each day on average.



2. 3 children share $2\frac{1}{4}$ cakes equally. How many cakes does each child get?

$$2\frac{1}{4} \div 3 = \left(\frac{9}{4} \right) \div 3$$

$$= \left(\frac{9}{4} \right) \times \left(\frac{1}{3} \right)$$

$$= \left(\frac{3}{4} \right)$$

Each child gets $\left(\frac{3}{4} \right)$ cakes.

Remember to change the mixed number into an improper fraction!



3. Mum pours $\frac{8}{9}$ L of milk into bottles equally. If each bottle holds $\frac{4}{5}$ L of milk, how many bottles of milk are there?

$$\frac{8}{9} \div \frac{4}{5} = \left(\frac{8}{9} \right) \times \left(\frac{5}{4} \right)$$

$$= \left(\frac{10}{9} \right)$$

$$= (1) \left(\frac{1}{9} \right)$$

There are $(1) \left(\frac{1}{9} \right)$ bottles of milk.

$\left(\frac{5}{4} \right)$ is the reciprocal of $\frac{4}{5}$.



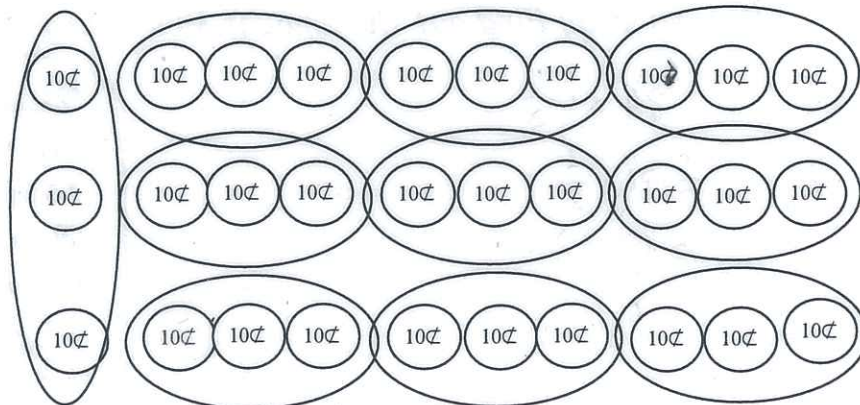
4. Each egg costs \$ $\frac{3}{10}$. How many eggs can be bought with \$3?

$$(3) \div \left(\frac{3}{10} \right)$$

$$= (3) \times \left(\frac{10}{3} \right)$$

$$= (10)$$

(10) eggs can be bought with \$3.



5. A pumpkin weighs $3\frac{1}{2}$ kg. It costs $\$13\frac{3}{10}$. How much does each kilogram of pumpkins cost?



$$\begin{aligned} 13\frac{3}{10} \div 3\frac{1}{2} \\ &= \frac{133}{10} \times \frac{2}{7} \\ &= \frac{133}{25} = 3\frac{4}{5} \\ &= 3\frac{28}{25} = 3\frac{4}{5} \end{aligned}$$

$$\begin{array}{r} 3 \\ 25 \overline{) 133} \\ \underline{75} \\ 58 \\ \underline{50} \\ 80 \\ \underline{75} \\ 50 \\ \underline{45} \\ 50 \\ \underline{45} \\ 5 \end{array}$$

Think about this: An apple weighs 3kg. It costs \$9. How much does each kilogram of apple cost?

Which operation do you use?

What is the mathematical sentence?

6. 3 workers divide $5\frac{4}{7}$ kg of sugar equally. Each worker packs the sugar into boxes of $\frac{1}{7}$ kg. How many boxes does each worker pack?



Total weight of sugar \div Number of workers = Weight of sugar each worker packed

Weight of sugar \div Weight of 1 box of sugar = Number of boxes each worker packed

$$\begin{aligned} 5\frac{4}{7} \div 3 &= \frac{39}{7} \div 3 \\ &= \frac{39}{7} \times \frac{1}{3} = \frac{13}{7} \end{aligned}$$

The worker need pack 13 boxes

7. $\frac{3}{4}$ kg of pork can be bought with $\$25\frac{1}{2}$. How much should Mrs Chung pay for $1\frac{1}{2}$ kg of pork?

First step: Find out the cost of 1 kg of pork:

$$\begin{aligned} 25\frac{1}{2} \div \frac{3}{4} \\ &= \frac{51}{2} \times \frac{4}{3} = 34 \end{aligned}$$

Same as Question No.5

Second step: Find out the amount Mrs Chung should pay:

$$\begin{aligned} 34 \times 1\frac{1}{2} \\ &= 34 \times \frac{3}{2} \\ &= 17 \times 3 \\ &= 51 \end{aligned}$$

Mrs. Chung should pay \$51

Think about this:

1kg \rightarrow \$ 34

10kg \rightarrow \$ 340

How can you find the above answer?

$1\frac{1}{2}$ kg \rightarrow use the same method



Division of Fractions Worksheet B Answer

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1. Mr Wong eats $\frac{3}{4}$ kg of rice in 9 days. How many kilograms of rice does he eat each day on average?

$$\frac{3}{4} \div 9 = \frac{1}{12} \quad \text{He eats } \frac{1}{12} \text{ kg of rice each day on average.}$$

2. 3 children share $2\frac{1}{4}$ cakes equally. How many cakes does each child get?

$$2\frac{1}{4} \div 3 = \frac{3}{4} \quad \text{Each child gets } \frac{3}{4} \text{ cakes.}$$

3. Mum pours $\frac{8}{9}$ L of milk into bottles equally. If each bottle holds $\frac{4}{5}$ L of milk, how many bottles of milk are there?

$$\frac{8}{9} \div \frac{4}{5} = 1\frac{1}{9} \quad \text{There are } 1\frac{1}{9} \text{ bottles of milk.}$$

4. Each egg costs $\$ \frac{7}{10}$. How many eggs can be bought with \$14?

$$14 \div \frac{7}{10} = 20 \quad 20 \text{ eggs can be bought with } \$14.$$

5. A pumpkin weighs $3\frac{1}{2}$ kg. It costs $\$13\frac{3}{10}$. How much does each kilogram of pumpkins cost?

$$13\frac{3}{10} \div 3\frac{1}{2} = 3\frac{4}{5} \quad \text{Each kilogram of pumpkins costs } \$3\frac{4}{5}.$$

6. 3 workers divide $5\frac{4}{7}$ kg of sugar equally. Each worker packs the sugar into boxes of $\frac{1}{7}$ kg. How many boxes does each worker pack?

$$5\frac{4}{7} \div 3 \div \frac{1}{7} = 13 \quad \text{Each worker packs 13 boxes.}$$

7. $\frac{3}{4}$ kg of pork can be bought with $\$25\frac{1}{2}$. How much should Mrs

Chung pay for $1\frac{1}{2}$ kg of pork?

$$25\frac{1}{2} \div \frac{3}{4} \times 1\frac{1}{2} = 51 \quad \text{Mrs Chung should pay } \$51.$$

Challenge Problem

Each packet of sugar weighs $\frac{3}{4}$ kg. If Dad pays $\$18\frac{9}{10}$ for 3 packets, how much does each kilogram of sugar cost?

$$18\frac{9}{10} \div \left(\frac{3}{4} \times 3\right) = 8\frac{2}{5} \quad \text{Each kilogram of sugar costs } \$8\frac{2}{5}.$$